

Claims

What is claimed is:

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1. A hydraulic system, comprising:  
a hydraulic pressure source;  
a first hydraulic load associated with a first load function;  
a second hydraulic load associated with a second load function;

and

an independent metering valve assembly including a plurality of independently and electronically controllable valves, said independent metering valve assembly including an inlet fluidly coupled with said pressure source, a first outlet fluidly coupled with said first hydraulic load, and a second outlet fluidly coupled with said second hydraulic load.

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2. The hydraulic system of claim 1, said first hydraulic load including one of a fan motor and a brake, and said second hydraulic load including the other one of the fan motor and the brake.

3. The hydraulic system of claim 2, said first hydraulic load including the fan motor and said second hydraulic load including the brake.

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4. The hydraulic system of claim 1, said second hydraulic load including a pair of brakes, and including an adjustable valve fluidly interconnecting said second outlet with each of said brakes, said adjustable valve controlling an amount of flow from said second outlet to each of said brakes.

5. The hydraulic system of claim 1, said plurality of controllable valves including a first controllable valve associated with said first hydraulic load and a pair of controllable valves associated with said second hydraulic load.

6. The hydraulic system of claim 5, including a tank, the first controllable valve being coupled between said pressure source and said first hydraulic load and a second controllable valve coupled between said first hydraulic load and said tank, said pair of controllable valves including a third controllable valve coupled between said pressure source and said second hydraulic load and a fourth controllable valve coupled between said second hydraulic load and said tank.

7. The hydraulic system of claim 1, including a first pressure sensor fluidly coupled with said first outlet and a second pressure sensor fluidly coupled with said second outlet.

8. The hydraulic system of claim 7, said independent metering valve assembly including said first pressure sensor and said second pressure sensor.

9. The hydraulic system of claim 1, said pressure source being a hydraulic pump.

10. A work machine, comprising:  
a frame;  
a hydraulic system carried by said frame, said hydraulic system including:  
a hydraulic pressure source;  
a first hydraulic load associated with a first load function;

a second hydraulic load associated with a second load function;

and

an independent metering valve assembly including a plurality of independently and electronically controllable valves, said independent metering valve assembly including an inlet fluidly coupled with said pressure source, a first outlet fluidly coupled with said first hydraulic load, and a second outlet fluidly coupled with said second hydraulic load.

11. The work machine of claim 10, said first hydraulic load including one of a fan motor and a brake, and said second hydraulic load including the other one of the fan motor and the brake.

12. The work machine of claim 11, said first hydraulic load including the fan motor and said second hydraulic load including the brake.

13. The work machine of claim 10, said second hydraulic load including a pair of brakes, and including an adjustable valve fluidly interconnecting said second outlet with each of said brakes, said adjustable valve controlling an amount of flow from said second outlet to each of said brakes.

14. The work machine of claim 10, including a first pressure sensor fluidly coupled with said first outlet and a second pressure sensor fluidly coupled with said second outlet.

15. The work machine of claim 10, said plurality of controllable valves including a first controllable valve associated with said first hydraulic load and a pair of controllable valves associated with said second hydraulic load.

16. The work machine of claim 15, including a tank, the first controllable valve being coupled between said pressure source and said first hydraulic load and a second controllable valve being coupled between said first hydraulic load and said tank, said pair of controllable valves including a third controllable valve being coupled between said pressure source and said second hydraulic load and a fourth controllable valve being coupled between said second hydraulic load and said tank.

17. A method of operating a hydraulic system, comprising the steps of:

providing an independent metering valve assembly including a plurality of independently and electronically controllable valves, said independent metering valve assembly including an inlet, a first outlet and a second outlet;

fluidly coupling said inlet with a pressure source;

fluidly coupling said first outlet with a first hydraulic load associated with a first load function;

fluidly coupling said second outlet with a second hydraulic load associated with a second load function;

controlling said independent metering valve assembly to control flow from said pressure source through each of said inlet, said first outlet and said second outlet.

18. The method of claim 17, including the steps of:

providing a tank;

providing a controllable valve coupled between said pressure source and said first hydraulic load;

providing a pair of controllable valves including a controllable valve coupled between said pressure source and said second hydraulic load and a controllable valve coupled between said second hydraulic load and said tank; and  
said controlling step being carried out using said first controllable valve and said pair of controllable valves.

19. The method of claim 18, including the steps of:  
providing a controllable valve coupled between the first hydraulic load and the tank.

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